

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented) A method for displaying digital grey scale images at a desired tonal value on a display screen of a display device, the method comprising:

pre-selecting based on an image visible on a display screen of a display device, a grey scale level of desire of an operator;

storing values consistent with the grey scale level of desire in a memory associated with the display device to form an operator-specific target grey scale level;

accessing the memory to retrieve therefrom information regarding the operator-specific target grey scale level when the operator picks up a new image for examination;

automatically calculating an individual transformation function relevant to the new image based on the information; and

automatically adjusting the new image to the operator-specific target grey scale level based on the individual transformation function.

Claim 2 (Currently Amended) A method as set forth in claim 1, wherein the individual transformation function is calculated by first selecting a desired initial function to be ~~parametered~~parameterized, the parameters of which are then optimized by an appropriate optimization algorithm for reaching the operator-specific target grey scale level.

Claim 3 (Previously Presented) A method as set forth in claim 2, wherein the transformation function comprises an exponential function.

Claim 4 (Previously Presented) A method as set forth in claim 2, wherein the transformation function produces an S-graph.

Claim 5 (Previously Presented) A method as set forth in claim 2, wherein the transformation function produces a multi-segment graph.

Claim 6 (Previously Presented) A method for displaying digital grey scale images at a tonal value on a display screen of a display device, the method comprising:

retaining image brightness automatically by control of contrast, wherein each value of contrast control results in an automated selection of the brightness value wherein a minimum amount of the image area is visible in black or white while a maximum amount of the image area is visible in tones of grey.

Claim 7 (Previously Presented) A display device for displaying digital grey scale images at a desired tonal value on a display screen of a display device, comprising:

means for manually adjusting a grey scale level of an image to an operator-specific target grey scale level desired by an operator;

memory means for storing therein values relevant to the operator-specific target grey scale level; and

computing means for calculating an individual image-specific transformation function for each new image to be examined by the operator.